



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,723	11/14/2003	John Edward Gunther	870107-1	2062
33651	7590	04/07/2005		
JERRY RICHARD POTTS 3248 VIA RIBERA ESCONDIDO, CA 92029			EXAMINER CHIEM, DINH D	
			ART UNIT 2883	PAPER NUMBER

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/713,723

Applicant(s)

GUNTHER ET AL

Examiner

Erin D. Chiem

Art Unit

2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/14/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 14 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Since claim 8 further limits independent claim 1 to be an apparatus used as an add drop multiplexer and claim 9 is dependent on claim 1, therefore, claim 14, dependent on claim 9, do not further limit the independent claim 1.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Deacon et al. (US 5581642). Deacon et al. teach an optical frequency channel selection filter with electronically controlled grating structures comprising an optical waveguide having an input port for receiving light and an output port for outputting reconfigured light (Figures 23, 27, 28, 35);
3. a first lightwave circuit element optically coupled to said optical waveguide by means of first electrically variable grating;
4. a first electrode arrangement overlaying said first electrically variable grating;

Art Unit: 2883

5. a second lightwave circuit element optically coupled to said first lightwave circuit element by means of second electrically variable grating;

6. a second electrode arrangement overlaying said second electrically variable grating;

7. wherein each of said first and second electrode arrangements have a first portion adapted to form a first electric field in response to first applied voltage (col. 34, line 61-67) and a second portion adapted to form a second electric field in response to a second applied voltage, said first and second electrode portions are spaced from one another in the direction of light propagation, and wherein said first and second electric fields are generally orthogonal to one another and transverse to the direction of light propagation. The optical signal inputted from multi-channel WDM with at least one selected channel is transferred between the optical waveguide and said first lightwave circuit element when the voltages are applied to the electrodes and at least one channel is transferred between the lightwave circuit. (Fig. 23; col. 3.9, line 21-44). The type of gratings employed by Deacon et al. is electrically switchable Bragg grating (Abstract). The ring and S-shaped coupler waveguide are visible in the various embodiments disclosed by Deacon et al. Furthermore, Deacon et al. teach reversing the pole, or physically reversing the first and second electrode portions of the first and second electrode arrangements (Fig. 52; col. 78, line 59 – col. 79, line 29). In the disclosed drawings, one can see the “multiplicity of individually switchable grating sections” and each grating section has a unique spatial frequency corresponding to a unique grating resonance (col. 70, line 11-28). The third lightwave circuit element optically coupled to the first lightwave circuit element by means of a third electrically variable grating is visible in Fig. 28.

Art Unit: 2883

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The series of patents own by Bischel et al. and Deacon et al. teach in further details of employing electrically controlled Bragg gratings as an add/drop multiplexer. Kewitsch et al. and Brinkman et al. teach the optical energy being coupled in such structures. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erin D. Chiem whose telephone number is (571) 272-3102. The examiner can normally be reached on Monday - Thursday 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Erin D Chiem
Examiner
Art Unit 2883

EDC



Frank G. Font
Supervisory Patent Examiner
Technology Center 2800